

U.S. Serial No. 09/996,480
Attorney Docketing No. 102123-200
7 of 11

RECEIVED
CENTRAL FAX CENTER
JUL 24 2006

REMARKS

In the present Office Action, claims 1-25, 27-29 and 31 are pending and are being examined. Claims 1-25 and 27-29 and 31 have been rejected by the Examiner.

By this Amendment, claims 1, 13 and 14 have been amended. No new matter has been added. Accordingly, claims 1-25, 27-29 and 31 are presented for further examination. By this Amendment, all claims are believed to be in condition for allowance.

Claim Objections under 35 USC 112

Claim 13 stands objected to based on the objectionable phrase beginning with the words "for use...". Responsive to this objection, the objectionable phrase has been deleted. Accordingly, this claim objection is believed to have been overcome. The Examiner is respectfully thanked for the suggestion in favor of deleting the objectionable phrase.

Rejections under 35 USC 112

Claims 1-3, 5-19, 21-25, 27-29, and 31 are rejected under 35 U.S.C. 112, first paragraph, because allegedly the specification, while being enabling for hydrochloric acid, sulfuric acid, nitric acid, formic acid, propionic acid, p-toluenesulfonic acid, oxalic acid, does not reasonably provide enablement for all the known organic or inorganic acid catalysts in the chemistry.

Response to this rejection, independent claims 1 and 13 have been amended to recite a Markush group of the enabled acids. Accordingly, this rejection is believed to have been overcome with respect to claims 1 and 13, and with respect to the remaining claim depending therefrom. Further, deletion of the objectionable phrase "for use" from claim 13 is believed to overcome the separate 35 USC 112 rejection of that claim.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

U.S. Serial No. 09/996,480
Attorney Docketing No. 102123-200
8 of 11

regards as the invention based on the allegedly objectionable word "includes". This word has been replaced with "contains" in order to overcome this rejection.

Rejections under 35 USC 101

Claim 13 is rejected under 35 U.S.C. 101 because allegedly the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process. The instant amendment to claim 13 deleting the phrase "for use" is believed to overcome this 35 USC 101 rejection.

Rejections/Objections under 35 USC 103(a) Objections

Claims 1-25 and 27-31 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Housel et al (U.S. 6,103,822) in view of Koistinen et al (WO 98/50338).

The claims stand rejected under 35 USC 103 as allegedly obvious over U.S. Patent No. 6,103,822 to Housel, et al. in view of WO 98/50338 to Koistinen, et al. This rejection is believed to be untenable.

Housel, et al. discloses polymeric acid functional polyols which are the reaction product of at least one hydroxyl-terminated polymer and a nonaromatic anhydride. Acid functional polyols according to Housel, et al. having the preferred hydroxyl functionality and acid and hydroxyl values can be derived from a reaction of either: (1) a nonaromatic polyanhydride with at least one polymer; or (2) at least one polyol and/or dicarboxylic acid with a component having at least two unhindered functional groups and at least one hindered carboxylic acid functional group. Further, Housel, et al. discloses the use of an organometallic catalyst, such as organotin to control the reaction.

Housel refers at page 8, lines 3 to 9 to the problems associated with catalysts in the statement "If the reaction, through the use of certain catalysts or a temperature which is too low, occurs too slowly, conversion to an acid functional polyol will take too long. However, if as a result of the use of particular catalysts or a temperature which is too high, the reaction proceeds

U.S. Serial No. 09/996,480
Attorney Docketing No. 102123-200
9 of 11

too quickly, unwanted side reactions, as discussed above, could occur.” Housel, et al. raises these potential problems, but neither discloses nor suggests any solution.

Housel, et al. does not disclose or suggest any acid catalyst as instantly claimed, but rather organometallic catalysts, such as organotin, and amine catalysts, at column 13 lines 11-24 of that patent.

At page 13 of the Office Action it is stated that “[t]herefore it would have been obvious to the skillful artisan in the art to be motivated to employ Koistinen’s et al. hydrochloric acid into the Housel et al process as an alternative to the Housel’s et al tin oxide because the skilled artisan in the art would expect such a modification to be successful and effective as guidance shown in Koistinen et al.” Applicants respectfully disagree, and submit that there is no suggestion or motivation to combine the disclosure of Koistinen, et al. with the disclosure of Housel, et al. Further, if the disclosures are combined, the combined teachings run counter to the present invention.

Koistinen, et al. discloses a process for manufacturing polyol complex esters. According to the method, a polyol, such as BEPD or NPG, is reacted with mono- and polyvalent acids in the presence of a catalyst to produce a reaction blend containing complex esters. More specifically, as disclosed in all of the working examples of Koistinen, et al., complex esters of BEPD (2-butyl-2-ethyl-1,3-propanediol) were manufactured by combining BEPD and saturated linear or branched monocarboxylic acid or unsaturated carboxylic acid and diacid. While acid catalysts, such as sulphuric acid and hydrochloric acid, are disclosed at page 3 lines 11-19 of the Koistinen et al, the sole catalyst employed in all of the working examples was tin oxide. Furthermore, the high amount of catalyst loading taught at page 3, lines 18-19 of this reference, and in the working examples, teach away from the instantly claimed range.

One of ordinary skill in the art, reviewing the reaction disclosed in Housel, et al. and taking into account the statement concerning potential catalyst problems, would not stray from the teaching set forth in Housel, et al. and therefore would not be motivated to combine the Housel disclosure with the disclosure of Koistinen, et al. Specifically, one of ordinary skill in the art would not deviate from Housel, et al. by using a catalyst that is entirely different from the

U.S. Serial No. 09/996,480
Attorney Docketing No. 102123-200
10 of 11

one discussed in the specification. Therefore, one of ordinary skill in the art would not look to Koistinen, et al. to modify the catalyst used in Housel, et al.

Furthermore, Applicants submit that even if one of ordinary skill in the art looked to Koistinen, et al. to modify Housel, et al., tin oxide would be used as a catalyst since tin oxide was specified as the catalyst utilized in all of Koistinen's working examples.

It is stated at page 12 of the outstanding Office Action that example 4 of Koistinen "shows any 'catalyst' described in the passages (see page 3, lines 12-18)...". This quoted statement is respectfully believed to not accurately reflect the teachings of example 4 of Koistinen. The first line at page 5 of Koistinen indicates that the only difference between example 4 and the rest of the examples of that reference is the presence of a solvent in the cleansing phase. Accordingly, the catalyst was not changed for example 4 – it was the tin oxide that was used in all other examples at a high 0.15 weight percent loading level.

Accordingly, there is no specific disclosure of any amount of acid catalyst in the Koistinen disclosure, much less any amount within the instantly claimed range. Accordingly the combined teachings of Koistinen with Housel et al would teach in favor of tin oxide to be used at a loading level above that instantly claimed for the Markush group of acid catalysts.

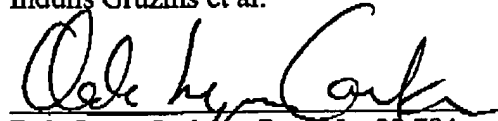
Accordingly, the combination of the Housel, et al. reference and the Koistinen, et al. reference does not support a prima facie case of obviousness under 35 USC 103(a) with respect to the instant claims. Withdrawal of the outstanding rejection of the claims on an early receipt of a Notice of Allowance thereof are respectfully requested.

If the Examiner has any questions or believes that a discussion with Applicant's attorney would expedite prosecution, the Examiner is invited and encouraged to contact the undersigned at the telephone number below.

U.S. Serial No. 09/996,480
Attorney Docketing No. 102123-200
11 of 11

Please apply any credits or charge any deficiencies to our Deposit Account No. 23-1665.

Respectfully submitted,
Indulis Gruzins et al.


Dale Lynn Carlson, Reg. No. 28,784

Date: July 24, 2006

WIGGIN & DANA LLP
One Century Tower
New Haven, CT 06510-1832
Telephone: (203) 498-4385
Facsimile: (203) 782-2889
Email: dcarlson@wigin.com

\\12800\614\604918.1